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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, VAN THU T

ART UNIT PAPER NUMBER

2824

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/618,473

Applicant(s)

DENG ET AL.

Examiner

VanThu Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on AF 7/8/05 and RCE 8/15/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-24 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6, 9 and 23 is/are allowed.
- 6) ☒ Claim(s) 5,7,8,11,12,14,16-18 and 24 is/are rejected.
- 7) ☒ Claim(s) 1-4,6,9 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. This Office Action is in response to After Final Amendment filed on July 8, 2005 and Request for Continued Examination filed on August 15, 2005.
2. Claims 1-9, 11-18, 23-24 are present for examination.
3. Claim 10 is cancelled.
4. Claims 19-22 are withdrawn from further consideration.

***Response to Arguments***

5. Applicant's arguments filed July 8, 2005 have been fully considered and they are partially persuasive.

Applicants' arguments regarding Itoh's FIG. 7b and Akiba's FIG. 13 are not wordline driver circuits are persuasive. Claim rejections based on Itoh and Akiba are withdrawn.

Yanagisawa's FIG. 16(B) is a wordline driver, claim rejections based on Yanagisawa are maintained.

Applicants also argue that bringing one of the inputs to a NOR gate high is not considered powering down the NOR gate, and there is big difference between the power switch and a portion of a NAND gate or the NOR gate. Examiner disagrees with this statement. There are various ways to build a NAND/NOR gate, which yield the same result of a Boolean function. However, to fully understand how a NAND/NOR gate works, logic connection within needs to be examined, not the terms NAND or NOR. In this case, FIG. 16(B) works as a NOR gate in overall, but it is still powered down by signal a.

Applicants' arguments regarding the intervention circuit comprising a resistor are persuasive, rejection of claim 13 is withdrawn.

***Drawings***

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, *the driver circuitry is between the intervention circuit and the word line as in claim 5* must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Amended claim 1 has limited the claimed invention to FIG. 2. Applicants' response regarding drawing objection from the previous Office Action based on FIG. 3 is no longer valid.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 5, 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

FIG. 2 of the present invention does not show limitations in claim 5.

Specification, paragraph [0022] specifically discloses that sleep mode control signal SLD applied to node 116 is independent, and not concurrent with sleep mode control signal SLK applied to node 122, which is contradicting with what claim in claim 7.

*Claim Rejections - 35 USC § 102*

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 11-12, 14, 16-18, 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanagisawa et al. (U.S. Patent No. 2001/0028581).

Regarding claim 11, Yanagisawa discloses, in FIG. 16(B) a semiconductor device comprising:

a row of memory cells (inherently connected to word line lw[3] for example);

a control circuitry preceding the row of memory cells (the lower left NOR gate);

and

an intervention circuit (n-channel transistor connected to signal a), instantiated within the control circuitry proximal to the row of memory cells, adapted to hold the row of memory cells at a desired state while control circuitry preceding the intervention circuit is powered down with a power switch (via p-channel transistor connected to signal a).

Regarding claims 12, 14, 16-18, 24, Yanagisawa also discloses a wordline lw[3] and a driver circuit comprising p-channel and n-channel transistors coupled to signal b (with or without p-channel transistor coupled to signal a) (as in claim 12); the intervention circuit is a n-channel transistor (as in claim 14); the intervention circuit is instantiated between the wordline and

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driver circuitry (as in claim 16); the intervention circuit is coupled to a first assertion signal source (signal a) that is also coupled to the driver circuitry (as in claim 17); intervention circuit is coupled to a first assertion signal source (signal a), and driver circuit coupled to second assertion signal source (signal b) (as in claim 18); pre-driver circuit [for generating global signal, e.g. gwb[0]] (as in claim 24).

***Allowable Subject Matter***

11. Claims 1-4, 6, 9 and 23 are allowed.
12. Claims 13, 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 13, 2005



VanThu Nguyen  
Primary Examiner  
Art Unit 2824